

ATTORNEY'S DOCKET NUMBER: 0492611-0506 (MIT 9926)IN THE UNITED STATES PATENT AND TRADEMARK OFFICERECEIVED
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Applicant: Chen, et al.
 Serial Number: 10/674,159
 Filed: September 29, 2003
 Title: "Influenza Therapeutic"

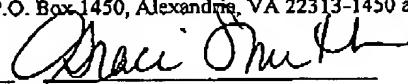
Examiner: McGarry, Sean
 Art Unit: 1635

JAN 10 2007

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January 10, 2006 
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Sir:

RESPONSE TO RESTRICTION/ELECTION REQUIREMENT

Applicant respectfully requests a two-month extension of time, from November 10, 2006 to and including January 10, 2006, to respond to the Restriction Requirement mailed October 10, 2006 in the above-referenced case.

Applicant submits that a typographical error was made in the Group I listing of claims in the Restriction Requirement, and that Group I should read "112-117" instead of "112-1117." Furthermore, claim 131, drawn to a method of designing an siRNA or shRNA, is listed by the Examiner both in Group I and also in Group V. Since claim 131 is a method claim, and Group I is generally drawn to a composition of matter, Applicant respectfully submits that claim 131 was included in Group I by error and should be included in Group V only. Finally, claim 145, another composition claim, was not listed in any of Groups I-V; therefore, Applicant submits that claim 145 should be examined with Group I, also comprising composition claims. Therefore, Applicant respectfully elects Group I (claims 1-88, 90-104, 112-117, 145, and 165-193), drawn to a composition comprising an siRNA or shRNA targeted to a target transcript, classifiable in class 536, subclass 24.5.

Additionally, the Examiner has further asked the Applicant to restrict Group I claims 39-65, 97, 182-184, 66-68, 94-96, and 179-180 to one sequence. Applicant is puzzled by this sequence restriction and respectfully submits that, particularly given the interrelationship of different sequences, restriction to only one would be arbitrary.

The sequences recited in the pending claims come from three basic sources. One set of

sequences (e.g., SEQ ID NOS 1-68 and SEQ ID NOS 190-269 from Tables 1A and 1B) represent target sequences against which siRNAs and/or shRNAs are designed. The other two sets represent individual strands (i.e., "sense" [SEQ ID NOS 188, odd-numbered sequences between 69-108, and even-numbered sequences between 190-269] and "antisense" [SEQ ID NOS 189, even numbered sequences between 69-108, and odd-numbered sequences between 190-269]) of particular siRNA or shRNA compositions designed to bind to the target sequences. These strands are designed to pair with one another over a defined portion of sequence, and therefore are complementary to one another. Furthermore, as they are designed to bind to the target sites represented by SEQ ID NOS: 1-68 they contain regions of close identity (or complementarity) with those sequences.

Applicant respectfully submits, therefore, that at a minimum, Applicant should be entitled to pursue a set of *three* sequences (sense, antisense, and target). Indeed, in some cases, more than one siRNA or shRNA (i.e., more than one sense/antisense pair) is taught for the same target sequence. Applicant respectfully submits that there is no undue burden in searching the target sequence (with some flexibility), so that all sets of sense and antisense strands for the same target sequence should be considered together.

Thus, Applicant is willing to elect sense, antisense, and target sequences corresponding to a single target sequence, NP-1496, for initiation of the search. Applicant, therefore, elects SEQ ID NO.: 43 for claims 39-48; SEQ ID NOS: 93 and 188 (sense) and 94 and 189 (antisense) for claims 64 and 65; and SEQ ID NOS.: 93 and 188 (sense) for claims 69, 97, and 182.

Claims 49-58 refer to the set of target sequences presented in Table 1B (e.g., even-numbered sequences from 190 to 269). Given that Applicant has elected a single target gene for initiation of the search, the NP gene, Applicant elects NP-4/32 (SEQ ID NO: 222) for the initiation of the search for claims 49-58.

Applicant further submits, however, that the United States Patent and Trademark Office has established a standard that there is no undue burden to Examiners to search ten different sequences in a single application. Applicant therefore submits that, in the present case, the Examiner should be willing to search ten sets of related target/sense/antisense sequences. At a minimum, the Examiner should be willing to search sets of sequences related to targets *actually exemplified* in the specification.

The present specification, among other teachings, provides explicit exemplification of three different target sequences: NP-1496 mentioned above, PB1-2257 and PA-2087. These target gene sequences were shown in the examples to be effective *in vitro* (Example 2, page 96,

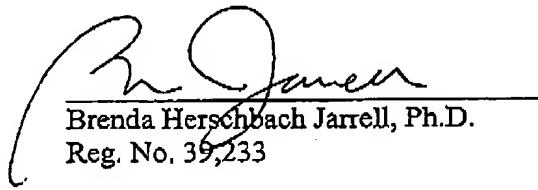
lines 28-30; Example 3, page 101, lines 25-29) and *in vivo* (Example 12, pages 128-134; Example 14, pages 136-139) and to work well when administered in combination with each other (Example 8; page 115, lines 9-17). Applicant therefore respectfully request that sequence sets relating to PB1-2257 and PA-2087 be searched in addition to those relating to NP-1496. Specifically, for PB1-2257, Applicant respectfully requests searching of: SEQ ID NO: 18 for claims 39-48; SEQ ID NOs: 77 and 78 for claim 60; and SEQ ID NO: 77 for claims 69, 97, and 182; for PA-2087, Applicant respectfully requests searching of: SEQ ID NO: 30 for claims 39-48; SEQ ID NOs: 83 and 84 for claim 61; and SEQ ID NO: 83 for claims 69, 97, and 182.

Applicant acknowledges that the Examiner stated that claims 1, 86, and 145 link the various inventions of Group I based sequence and that claims 105 and 122 link the various inventions of Group III based sequence. Applicant acknowledges that the Examiner stated that upon indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise requiring all of the limitations of the allowable linking claims(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104. Applicant acknowledges that the Examiner stated that claims that require all the limitations of an allowable linking claim will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier.

Applicant thanks the Examiner for careful consideration of this case. Examiner is invited to telephone the underside if there is any question about Applicant's position or if a conversation is otherwise warranted.

Please charge any necessary fees or credit any overpayments to our Deposit Account No. 03-1721.

Respectfully submitted,



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